

BEFORE THE CALIFORNIA ENERGY COMMISSION
OF THE STATE OF CALIFORNIA

In the Matter of:)

The Preparation of the 2005 Integrated
Energy Policy Report (Energy Report))

Docket 04-IEP-01D

COMMENTS OF
SAN DIEGO GAS & ELECTRIC COMPANY
ON RESOURCE PLAN

DOCKET 04-IEP-1D
DATE JUL 22 2005
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INTRODUCTION

San Diego Gas & Electric Company (SDG&E) hereby files its Comments following the June 29, 2005 hearing and issuance of the June 2005 Staff Report, "Investor-Owned Utility Resource Plan Summary Assessment" in the Integrated Energy Policy Report (IEPR) proceeding. SDG&E's Comments address specific aspects of the Staff Report that should be changed before the Commission issues its final IEPR this fall. It is also important to note that the resource planning information that SDG&E provided to the Commission Staff in this proceeding responds to the specific forms and instructions that Staff issued to all respondent Load Serving Entities (LSE). In following the CEC Staff's directives for the submittal, LSEs were asked to "assume away" uncertainty regarding, for example, the amount of departing load that would occur in the future. SDG&E does not necessarily believe, however, that those forecasts represent the likely view of the future and consequently the load for which SDG&E should be planning. In issuing the final IEPR, the Commission should expressly recognize that

certain forecasts contained in the Report do not necessarily constitute the forecasts that should be used for resource planning purposes. Finally, SDG&E also attaches herewith material in response to the request of Commissioner Geesman during the June 29 hearing that the utilities^{1/} generally explain how the “least cost, best fit” procurement analysis is conducted.^{2/} SDG&E is providing this explanation in Attachment A, a draft excerpt from an SDG&E RFO for renewables, which is currently pending approval by the California Public Utilities Commission.

COMMENTS

All Chapters

The Staff Report frequently refers to the utilities not providing specific detailed data which would allow staff to reach certain conclusions. An example is found at page 67 for SDG&E’s Distributed Generation forecast. ***SDG&E recommends that the Staff Report be modified throughout to remove such references or to clarify that Staff did not request such information.*** The IOUs have not failed to provide data or information in these areas, as the Staff’s current phrasing suggests.

Chapter 1 – (Introduction)

Page 7: “The Supply Forms’ description of the Reference Case were supposed to include assessments of the major uncertainties which influence resource planning decisions, along with some discussion of their actual influence on the reference case resource plan. As it turned out, however, the three IOUs filed their narrative descriptions

^{1/} SDG&E, Southern California Edison (SCE), and Pacific Gas and Electric Company (PG&E). Also referred to herein as IOUs.

^{2/} SDG&E would note in this regard that the “least cost, best fit” analysis is conducted in the context of specific resource acquisitions, separate and distinct from the resource planning process, which utilizes a portfolio optimization process to generally determine the types of resources that are required for SDG&E to meet its needs in the future.

of their Reference Cases as part of their descriptions of additional scenarios that were requested by April 1 (see below).”

The second sentence needs to be corrected by deleting “As it turned out, however.” SDG&E filed its narrative description on April 1 based on specific instructions from Staff to only submit the forms for the Reference Case on March 1 and to submit the other cases and all written material on April 1.

Chapter 2 – (Energy Efficiency)

Page 17: “Adjustments for Direct Access had no impact on the efficiency savings for the forecast period 2009-2016.”

This sentence should be corrected to state the following: “Adjustments for Community Choice Aggregation had no impact on the efficiency savings for the forecast period 2009-2016 because the savings targets listed in the forms are for the entire service area, not just for SDG&E’s bundled load.” These changes are needed because SDG&E did not make any adjustments for Direct Access among cases. SDG&E did, however, make adjustments in Community Choice Aggregation. Second, the sentence should explain why an adjustment was not necessary rather than leave it unexplained.

Page 17: “SDG&E provides no explanation of how they have avoided ‘double-counting’ the portion of these goals already accounted for in the Energy Commission’s demand forecast.”

This sentence should be deleted. SDG&E did not provide, nor was SDG&E asked to provide, any comparison between SDG&E’s forecast and the Staff’s forecast so there was no need to provide such an explanation.

Page 21: “There is a difference in the savings reported on the Demand and Supply forms for the incremental MW added each year over the period 2009-2016.”

This sentence should be deleted because it implies that different forecasts or assumptions were used, which is not the case. Supply Form S-1 shows monthly cumulative MWs of Energy Efficiency programs. Demand Form 3.2 shows the average annual MWs of Energy Efficiency programs added per year. Averaging 12 months of data on S-1 provides the value per year on Demand Form 3.2.

Chapter 3 – (Price Sensitive Demand Response)

Page 41: The first paragraph under the “Reporting Price Sensitivity Demand Response Resources to Energy Commission.”

SDG&E recommends that this entire paragraph be deleted or moved to the introduction. It is not relevant to the discussion in this section. The IOUs were instructed by the Staff to show impacts equal to the Commission’s goals.

Page 41-42: “None of the IOUs’ Reference Cases included as dependable resources in Line 6 an amount of capacity equal to the target percentage times their annual system peak demand. SDG&E calculates the ‘system peak’ from which the percentage of system peak goals must be achieved as the Form S-1 Line 1 peak minus Direct Access (Line 4)- that is, they use their bundled system peak as the basis for calculating their demand response goals.” Page 42: “As noted above, these levels are between 15 percent and 25 percent lower over the planning period as the goals as would be using the CPUC’s definition.”

SDG&E agrees that the CPUC’s demand response goal equals the target percentage times the annual system peak demand. SDG&E also agrees that the demand

response values shown on Line 7 of its forms are only that portion of the goal that is anticipated to come from SDG&E's bundled load. This was necessary in order for the math on the form to work. SDG&E's submittal pointed this out in a footnote to the tables. If the total system demand response target had been shown on Line 7, then the amount of load shown for DA and CAA would have to be reduced to a capacity amount after the impact of demand response. With a desire to show gross DA and CCA demand on Lines 4 and 5, and in attempting to maintain the integrity of the supply form format, only bundled demand response was calculated and shown on Line 7 of Form S-1.

The columns below show two examples of how the data was presented verses how it could have been presented if the Staff prefers to see the demand response line include a figure equal to the total demand response in the planning area. In either case, the IOU bundled load remains unchanged.

	As Provided	Alternative Method
System Load	5,000	5,000
- DA Load	500 (before DR impact)	475 (after DR impact)
- CCA Load	500 (before DR impact)	475 (after DR impact)
- Demand Response	<u>200</u> (bundled only DR)	<u>250</u> (all load DR)
Bundled Load	3,800	3,800

The Staff's comments on the amount of demand response in SDG&E's plan should be rewritten to state: "SDG&E's plans were based on meeting the CPUC's goals for demand response, which will be achieved from all customers, including direct access and community choice aggregators. However, in order to make the supply form math work, Form S-1 shows only that portion of the total goal associated with

SDG&E’s bundled customers.” Any references that imply SDG&E’s resource plans only included demand response 15% -25% lower than the goals should be deleted.

Chapter 4 – (Renewable Power)

Page 53: “The other utilities calculated their annual renewable procurement percentages by dividing the sum of the renewable by the *current* year’s retail sales. When calculating the benchmark attainment path and assessing the IOUs’ resource plans, staff calculated the annual percentages the way SCE and SDG&E did.”

SDG&E calculates the renewable percentage by dividing the sum of all RPS eligible renewable energy in one year by the total retail sales of the previous year (same as PG&E). ***It should be noted that this is also the methodology spelled out in the legislation and being implemented by the CPUC. All reports by the CEC on this topic should follow this same procedure.***

Page 57: “Although both SDG&E’s Reference Case and Alternate Case assume 20 percent of retail sales from eligible renewables by 2010, neither plan follows the hypothetical, uniform procurement path to get there. In fact, both cases assume a doubling of eligible renewable energy in the portfolio mix during the last year between 2009 and 2010.”

SDG&E has attempted to reflect a reasonably accurate portrayal of renewable energy purchases given physical and market constraints. Both the Alternate Case and Reference Case assume the addition of a major transmission line. Using least cost, best fit methodology, much of the renewable energy would be provided from projects utilizing this new transmission line or existing lines that will no longer be fully utilized. ***Staff should incorporate the following sentence in this section: “Given the time it will take***

to complete the considerable number of renewable projects needed to meet RPS goals, and the inability of those projects to deliver energy until the needed transmission is completed, SDG&E assumed a procurement profile that reflects these constraints. However, SDG&E's plan still meets the statutory requirement of adding at least 1% a year given the CPUC's implementation guidelines."

Page 59: "Plausibility of Renewable Assumptions in SDG&E's Resource Cases."

SDG&E recommends that the staff remove all conclusions regarding the feasibility of any of the renewable cases until the staff completes the necessary analysis. The necessary analysis would be one that determines the commercial feasibility of renewable power to get built and delivered to load, and the timing and cost of all necessary transmission upgrades. The analysis should also include the potential limits of these cases given the parameters described in the RPS legislation, which includes but is not limited to the maximum price that the IOU must pay is set by the market price referent. To date, Staff analysis has been heavily based on technical potential, which is not adequate to draw the conclusions currently included in the report.

Page 59: "Four of the eighteen generators listed have obtained the Energy Commission's RPS certification."

SDG&E recommends that this sentence be deleted, or at least corrected. SDG&E recommends it be deleted because the status of renewable generator certification is not an element of the resource plan. However, if Staff wishes to leave it in the report then a similar section should be added for PG&E and SCE. Also, if not deleted the section for SDG&E should read *"SDG&E has applied for and received certification for 10 of its QF renewable contracts. Because QF contracts lack contractual obligations*

for generators to obtain RPS certification, the CEC should set up a process where utilities can certify on behalf of the generators. Three non-QF renewable generators have applied for and received certifications. The remaining resources are in the process of obtaining certification.”

Page 61: “SDG&E’s Updated 2005 Long Term Procurement Plan filed March 25, 2005 with the CPUC is not entirely consistent with the Reference Case filing.”

The report should be modified to state: “SDG&E’s 2005 Long Term Procurement Plan filed March 25, 2005 with the CPUC is consistent with the Reference Case. However, the quantity and timing of some renewables acquisitions are different from the Reference Case because: (1) the Long Term Procurement Plan has a higher utility sales forecast because it does not assume any loss of load to CCA and subsequently a greater need for renewables to meet the 20% target by 2010; and (2) the Long Term Procurement Plan increases renewable energy procurement by 1 percent of sales per year after 2010 as compared to the Reference Case which maintains a 20 percent RPS target after 2010.”

Chapter 5 – (Distributed Generation)

Page 67: An “availability factor” is stated for SDG&E’s DG data.

The report should clarify what the Staff means by availability factor. SDG&E has not provided nor does it have data on the availability of DG applications in its service area. It is possible that the staff is calculating an average capacity factor. Staff should clarify what it means by this term and how it is calculated.

Page 67: “SDG&E’s Supply Form estimate of its installed dependable capacity at the beginning of the forecast period is significantly less than the 84.7 MW of nameplate

capacity reported in their public interconnection reports. It is unclear why SDG&E's forecast starting point is substantially less than actual installed capacity."

These sentences should be deleted. The instructions for Line 8 of Supply Form S-1 state that "this number should represent new [emphasis added] amounts of Self Generation that would be subtracted from future IOU load obligations" (Forms and Instructions for the Electricity Resources and Bulk Transmission Data Submittal, January 2005, p. 11). Therefore, SDG&E only identified incremental new self-generation demand on Line 8 and no installed capacity was included on this line. Based on Staff's directions, the starting point is zero and historical additions are not shown.

Page 67: "Staff's analysis of actual public interconnection data for the years 2001-2004 shows an average monthly increase in DG nameplate MW capacity of 1.2 MW per month, with a cumulative installed capacity over this time period of 84.7 MW. All three of SDG&E's forecasts (i.e., the Accelerated Renewables Case, Alternative Case, and No Transmission Case) have an average monthly dependable capacity increase this is significantly less than 1.2 MW per month over the entire forecast period (January 2006 – December 2016)."

These sentences should be deleted until Staff completes the necessary analysis to draw the correct conclusions. If Staff does not delete this section, it should supplement the Report to state that a complete analysis needs to be undertaken that considers the following factors: (1) the impact of unit shutdowns; (2) the historical difference between nameplate ratings and net dependable capacity delivered at time of system peak (capacity operating at time of peak is what is shown in the forms); (3) the appropriateness of using only data from a time period during and immediately after the

energy crisis to forecast future additions; and (4) whether or not the MW additions during this period were driven by a few large projects that may not be indicative of future installations in the San Diego area. Only after such an analysis is completed can conclusions about the appropriateness of using DG interconnection data from this period in forecasting future additions.

Chapter 8 – (Transmission)

Page 104: “SDG&E’s capacity tables with and without the transmission project show that without the transmission project SDG&E expects to rely less on renewable resources and seasonal capacity, and to rely more on load following and peaking capacity that it would with the transmission project.”

SDG&E recommends the above sentence be deleted. The Staff report draws conclusions that are not correct. The Staff Report highlighted the increasing complexity of satisfying both system and policy requirements. This is especially true when considering the RPS. Given system constraints such as transmission, a RPS portfolio may shift relative dependence among different technologies, such as wind, geothermal or solar, depending on the available transmission. The CPUC, for resource adequacy, has directed the IOUs to use the average monthly generation during the peak period to determine resource adequacy for renewable resources. A shift in dependence towards a renewable technology with a higher capacity factor, such as shifting from wind to geothermal, will result in the need for less total capacity to meet the same renewable goal. This is because we are adding less “resource adequacy capacity” to generate the same amount of renewable energy. The reverse is also true in that a renewable technology with a low capacity factor and corresponding energy output may have a high

resource adequacy number given the current methodology for calculating resource adequacy and given the appearance of shifting dependence, from a capacity standpoint, towards renewable technology. This shift between renewable technology types in the two cases resulted in differences in the amount of renewable capacity needed to meet the goal, and thus the difference in the portfolio. ***The only conclusion Staff should draw between the cases is that without the transmission line SDG&E will need to add more generation in its service area to meet grid reliability concerns and will likely need to rely on a different mix of renewable power to meet the 20% goal.***

DATED this 22nd day of July, 2005, at Los Angeles, California.

Respectfully submitted,

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ATTACHMENT

****DRAFT****

REQUEST FOR OFFERS

ELIGIBLE RENEWABLE RESOURCES
IN
SAN DIEGO COUNTY

9.0 EVALUATION CRITERIA

Offers that meet RFO requirements will be evaluated on the basis of a least cost/best fit (LCBF) analysis. Three components of the LCBF analysis that are of primary importance to SDG&E in its evaluation of offers are:

- 1) Delivered energy costs.
- 2) Overall fit with SDG&E's resource portfolio.
- 3) Transmission system upgrade costs.

SDG&E is evaluating offers in accordance with CPUC direction and criteria established for the RPS Program. SDG&E will place high emphasis on the offer pricing in its evaluations, not only in terms of the initial cost to SDG&E, but also the long-term costs.

The LCBF process will generally include the following steps:

- 1) Rank the offers by total cost "downstream" from the generator tie.^{3/} Offers will be evaluated relative to the all-in price (including energy and capacity), including transmission system expansion costs (e.g., network upgrades associated with interconnection and delivery).
- 2) Eliminate offers within each category that are noticeably more expensive across the entire range of expected operating conditions, with a cross-check to determine whether the remaining offers meet or exceed the desired quantity for procurement. This process will be used to short-list offers. Offers that are eliminated may be reconsidered should an offer that was initially short-listed be rejected or withdrawn during negotiations.

^{3/} Each Respondent shall be responsible for including "gen-tie" cost in its Offer as presently required by the FERC.

- 3) Evaluate the remaining offers' fit relative to SDG&E's existing portfolio and other potential purchase opportunities.
- 4) The transmission cost analysis may be further refined to reflect the short-listed offers as may be appropriate. Such analysis will be presented to SDG&E's PRG. The offers will be re-ranked relative to the total cost basis.
- 5) Differentiate offers of similar cost^{4/} by reviewing qualitative factors including: (in no particular order of preference)
 - a) Location
 - b) Benefits to minority and low income areas
 - c) Resource diversity
 - d) Environmental stewardship

These factors will be used to differentiate offers with similar costs for those resources under consideration near the annual procurement target. SDG&E requests that Respondents elaborate in their offer on the benefits of their project with regard to these factors.

- 6) Differentiate offers of similar cost by reviewing other factors including: (in no particular order of preference):
 - a) Delivery Reliability
 - b) Ability to advance schedule
 - c) Technology
 - d) Likelihood project will be able to develop and achieve Commercial Operation within established timeframes.
 - e) Operational flexibility
 - f) Development risk
 - g) Financing plan
 - h) Corporate capabilities, credit, and proven experience
 - i) Repowering / Contract extension

These factors will be used to differentiate offers with similar costs for those resources under consideration near the annual procurement target.

^{4/} The term "similar cost" is used to indicate expected indifference by the PRG and CPUC as to the cost of one bid or another. The PRG will have access to SDG&E's evaluation and the quantitative and qualitative components of those bids prior to SDG&E's recommendation filing to the CPUC.

Consistent with CPUC Decision D.04-07-029 issued on July 8, 2004, SDG&E will treat dispatchability, curtailability, local reliability and repowering as quantitative attributes and will evaluate these factors using quantitative methods. SDG&E requests that Respondents elaborate in their offer on the benefits of their project with regard to these factors.

- 7) Final selection will be from those least-cost/best-fit offers chosen for purposes of meeting its RPS requirements.
- 8) The evaluation process and results will be presented to SDG&E's PRG for its review and input. After addressing PRG comments and recommendations, SDG&E will submit the results to the CPUC for its consideration, review, and approval.

The process outlined above contemplates the integration of least-cost and best-fit concepts. Furthermore, best-fit is relevant not only to the overall portfolio, but to transmission assessment, where the attributes of the various offers are reflected in an overall cost basis, thereby allowing for ranking and selection. The above process, by its reliance on the overall fit with SDG&E's existing resource portfolio, encourages the use of least-cost resources. This will encompass the concept of minimizing excess energy sales resulting from the new resources added to the portfolio.